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(54) MULTI DIGITAL TELECOMMUNICATION PANEL

Abstract

Machine Translation | Human Translation

1 The present invention relates to the digital DATA signal conversion equipment and the satellite BS-TV for distributing the multimedia information communications of the asynchronous transfer mode and various kinds of high speeds in the business use and building for house with connection as the social environment is changed to the information oriented society environment, and the conversion of the air radio frequency TV signal of the satellite CS-TV and the UHF / VHF bandwidth and amplifier arrangement embedded integrated type communications terminal board, and a kind and mode of the information and communications service including the BS TV of the air radio frequency TV of the tow way cable television of the DIGITAL DATA communications of the ATM DIGITAL communications light of the asynchronous transfer mode which decides on the ISDN, ADSL, T1, E1, 10/100Mbps ETHERNET and optical cable to a media including the analog telephone according to be carried out to the information oriented society on a full scale and coaxial cable and the UHF / VHF bandwidth and satellite, the CS TV etc. are various. As the function of having the connecting contact function between the lead-in

station line and the internal wire network according to that of the communications terminal board the connecting contact does a function about the multimedia information communications of the asynchronous transfer mode and various kinds of high speeds in the simple function of the analog connecting contact of a prior to a need, the signal conversion of the present invention and signal amplification device embedded communications terminal board are comprised like that for the offer of the multimedia information communications service of the high speed of the various kinds of various modes and asynchronous transfer mode like a next. The plate is attached in the terminal board case board of the square shape. The attached plate upper side is classified according to information and communications mode of N-odd a block. The digital signal conversion apparatus corresponding to the lead-in of a number and horizontal wiring suspicion registered jack-45 modular jack and multiport modula bridge adapter and corresponding communications method is attached in the Unxhielded twisted-pair (UTP) cable and the block connecting the optical cable. The signal conversion equipment including the ST type fiber connector of a number and herb (HUB) and settop box (SET TOP BOX) etc. is attached in case of connecting the optical cable. It supports with connection so that information and communications service of the various kinds of various modes at the information oriented society be used in order to selectively attach the signal conversion equipment for the dispersion / directional coupler. connecting F type connector and receiving line of a number with dispersion corresponding to the classification coaxial cable corresponding to the block connecting the coaxial cable more than the occlusion class among 2 for the bidirection CATV and satellite BS / CS or the air radio frequency TV signal, the signal amplification device etc. according to information and communications use circumstance of the construction Elatine triandra building surroundings or the user. Particularly, it was invented so that the telecommunications outlet for the patch cord was attached in the lower column portion of the front side of the case to the connecting contact dragon between the external terminal and the integrated type digital telecommunication panel of the present invention for the smooth use of the information communtion terminal equipment in which the day mounted the differently various function and changing and develops to the various model and use be the NT / TA for ISDN, the CABLE-MODEM for CATV, the SET-TOP-BOX for ADSL, HUB for LAN etc various kinds of external terminals possible with the external shape which was not built-in state.

Machine Translation | Human Translation

PURPOSE: An integrated digital communication terminal board is provided to attach a fetch unit for a patch cord to a lower part of a case front, to connect the integrated digital communication terminal with external terminal devices, so as to use the various kinds of the external terminal devices as externally-installed types.

CONSTITUTION: A plate(22) is attached to a lower plate of a square-typed terminal board case(11). An upper surface of the attached plate(22) is divided according to information communication methods. In a block for connecting an unshielded twisted pair(UTP) cable and an optical cable, many lead-in/horizontal wire-typed RJ45 modular jacks(18), multi-port modular bridge adapters(19), and digital signal converting devices(20) are attached. When the optical cable is connected, the digital signal converting devices(20) such as many star-typed fiber connectors, a hub, and a set top box are attached. In a block for connecting a coaxial cable over dual shields, F-typed connectors(17) corresponding to various kinds of coaxial cables are attached. In the bock, a bi-directional cable TV distributor/divider(16) and a satellite BS/CS or a signal converter for TV signals and a signal amplifier are selectively attached, according to architectural environments or user's information communication environments.

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Representative Drawing(s)



Fig. 1

Keyword(s)

Integrated type digital telecommunication panel.

Descritption

‣ Brief explanation of the drawing

2 The external view of the integrated type digital telecommunication panel which is whole Fig. 1-.

3 The configuration diagram of Fig. 2- the digital telecommunication panel.

4 The description > of the denotation about the main part of < drawing.

5 10: integrated type digital telecommunication panel 11: case.

6 11a: pipe coupler 12: bracket.

7 13: air radio frequency TV signal conversion amplifier arrangement.

8 14: satellite BS / CS-TV signal conversion amplifier arrangement.

9 15: power portion doublelengt value.

10 16: tow way cable television signal quarter / distributor.

11 17: f type registered jack-45 type ST type connector and modular jack terminal strip.

12 18: the registered jack-45 single / multiport modular jack / adapter for DATA.

13 19: the single / multiport modular jack / bridge adapter less than the voice and 2Mbps.

14 20: ISDN ADSL hub DIGITAL DATA signal conversion equipment.

15 21: lid.

16 21a: the groove for the patch cord telecommunications outlet.

17 22: plate.

18 23: ground terminal strip.

‣ Details of the Invention

‣ Purpose of the Invention

The Technical Field to which the Invention Belongs and the Prior Art in that Filed

19 The present invention relates to the integrated type digital telecommunication terminal board, and it is the integrated type digital telecommunication terminal board which is the veyr high speed multimedia service which is the asynchronous transfer mode digital information communications of the ISDN, ADSL, T1, E1, ETHERNET etc of the molding (STAR) mode provided among information and communications service provided to the various cable matcher at the information oriented society environment to the UTP cable and optical cable provided to a media and the air radio frequency TV, which is the analog communications for the telephone of the autobus (BUS) mode and coaxial cable serviced to a media the satellite BS-CS TV broadcast, including, various medias of each kind information and communications services including ATM etc. designed so that the use of the specific tool penuriously *** a connection and dispersion in one communications terminal board to the user discretion.

20 Generally, as most, the analog telephone dragon of the low speed of the bus mode, the communications service provided under the industrial society environment processed a plurality of wirings in the connection of the communications line at the communications terminal board and dispersion in the form of a screw-down or a wrapping. Still, the problem particular to take advantage of the communications service of the analog mode was not generated. But the various ultra-high-speed multimedia digital communications services of uses of the STAR mode by the various cable matcher which is afresh provided does due to the appearance of the various kinds of digital communications methods and offer of the service as the function of the connection of the communications terminal board for the analog wiring of the bus mode by the conventional single cable media and dispersion with disable while the social environment rapidly changes into the information oriented society.

21 Moreover, only when separately using the communications terminal board of the exclusive corresponding to the classification cable matcher of and signal conversion amplifier arrangement of an exclusive after installation in order to use different information and communications service as a classification, the use is possible.

22 But in this way, it has to be equipped with a user as well as the rising of the communications terminal board corresponding to the classification cable matcher and necessary expenses, moreover, the specific tool. The signal conversion equipment is separately set up with it has a limit in the business building which is equipped with the facility management organization of the full-time service because it has to learn the related specialty ability of technique the small scale building and residential and commercial complex building etc. in the installation use. The use of the variously provided ultra-high-speed multimedia digital communications service is exceedingly restrictive.

23 Particularly, in case of the building for house, the use of the digital communications service of the ultra-high-speed multimedia was exceedingly restrictive the asynchronous transfer mode digital communications method by the various cable matcher of the analog telephony communications of the structure of being restricted of the wall type structure and existing bus mode and molding method in the building for house as it was impossible to the processing of the dispersion and connection to the digital telecommunication panel of the communications terminal board for the existing analog or the simple function.

24 The problem described in the above was identical in not only the building for house but also the large size Office building middle miniature residential and commercial complex type building. The main part fault cause was in the being advanced of the national computerization environment.

Technical challenges of the Invention

25 The present invention solves the problem as described above. Therefore, it is embedded in the fixed depth or the present invention classify the case of the square shape installed in the exposure form and case in into the power source and earth terminal alternative 1 block from 3 communications a block. It attaches the tow way cable television and the air radio frequency, the coaxial cable in one block to the transmission media and provides the multimedia service among 3 communications a block BS, and the CS-TV suspicion signal conversion medium width apparatus and input-output suspicion *** nectar terminal strip. It attaches the single / multiport modular jack / bridge adapter for the registered jack-45 for the use of the communications service of the single / multiport modular jack / adapter for the registered jack-45 of the ISDN, ADSL, T1, E1, ETHERNET etc deciding on UTP and optical cable to the transmission media in the middle one block and provides the veyr high speed multimedia service and analog telephone suspicion BUS form. It attaches ISDN, ADSL, and the MODEM suspicion DIGITAL / DIGITAL or the DIGITAL / ANALOG DATA signal conversion equipment in the middle one block. At the same time, it is the integrated type digital telecommunication panel which is the DIGITAL DATA 1 circuit or greater more than the analog telephone more than 1 a circuit and 64Kbps invented within a building in order to *** the arbitrary need circuit

including a telephone or DATA etc. in the certain place to the lead-in station line of 1 a circuit.

26 Moreover, the ground terminal strip achieving the identical point ground passing through the ground terminal strip of the layer terminal board from power portion doublelengt value and main distributing frame having the custom premise power supply function of the power source and earth terminal alternative block to being *** supplied in the embedded subscriber terminal use is adhered to. It is the digital telecommunication panel which at the same time, altogether provides the safety function of the identical point ground with the subscriber premise power supply function and subscriber building wire former system.

27 The integrated type digital telecommunication panel of the present invention provides the device adaptability abundant in order to variously change the configuration according to a kind and form of a building and it uses in the necessary communications service of correspondence. That is, the former component everyone of the integrated type digital telecommunication panel including the air radio frequency in the single-type residential building, BS, and the CS-TV suspicion signal conversion amplifier arrangement and tow way cable television quarter / distributor equipment possible with selection and use. The optional use is the terminal strip for the signal conversion amplifier arrangements of the block for the coaxial cable the tow way cable television quarter / distributor equipment and UTP cable and optical cable media and DATA signal conversion equipment etc. possible in the apartment type population residential building. Moreover, in the office building, it is the digital telecommunication panel predicating the abundant adaptability which the component of the UTP cable and optical cable block or the DATA signal conversion equipment etc. corresponds with the use circumstance of the inclusion user according to the use circumstance to the classification of the building in other words.

28 On the other hand, the hour which tries to use the DATA signal conversion equipment as the external computing device which is not embedded uses the groove for the patch cord withdrawal opened in the lid bottom of the front of the case top. The function of the communications terminal board for the integrated type digital communications is achieved since each other connecting as the patch cord of an exclusive and external computing device DATA signal conversion equipment.

29 Moreover, in the case lower part each side, it is achieved by the slide door form having the function for protecting the patch cords in the telecommunications outlets for input and output and patch cords and outside equipment connection in the lead-in station line, the horizontal cable suspicion pipe laying hole and case top portion and preventing the inferiority of a connection by the extension impact and dispersion in an unburned or the lid etc. the groove for the patch cord withdrawal of the removable door form is equipped.

▸ Structure & Operation of the Invention

30 Concretely it is an example the same in below, and desirable one room of the integrated type digital telecommunication panel based on the attached view like a next.

31 Fig. 1 is a drawing showing the total shape of the integrated type digital telecommunication panel (10). The built-in type or the exposed case (11) in of the square shape is classified into the power source and earth terminal alternative 1 block from 3 communications a block. The signal conversion amplifier arrangement (13) for the air radio frequency TV of a number of the coaxial cable media dragon, F type connector terminal (17) for the lead-in of the signal conversion equipment (14) for the satellite BS CS-TV and tow way cable television dispersion / apparatus for branch (16) and number and external device *** coaxial cable etc. are attached in 1 among 3 communications a block. The tow way cable television dispersion / directional coupler. (16) is and links connected in the coaxial cable for the telecommunications outlet of the light oil each appointed place after passing through the air radio frequency, corresponding the lead-in station line terminal strip (17) to the characteristic of the light oil BS, and the signal conversion equipment for CS-TV in the residential building. The use of information and communications service which the coaxial cable to a media since connecting and linking in the coaxial cable of the telecommunications outlet of each specification position is the coaxial cable media of the HEAD-END secondary side possible in the apartment type building or the office building in the tow way cable television dispersion / directional coupler. (16) after the connecting contact.

32 Moreover, as to an establishment, and the lead-in station line of the optical cable media and Unxhielded twisted-pair media, the service for the analog telephone connects and links the UTP cable for the telecommunications outlet of each designation for information and communications service of the UTP cable or the optical cable media among the communications block for the UTP cable and optical cable in the DATA signal conversion equipment (20) of the DATA signal conversion equipment

block which one more sets the connection to the terminal strip (17) in which the registered jack-45 modular jack of the exclusive of or the ST type connector is attached after a connection as a block with middle as the patch cord of an exclusive among the connection one Hoo, and the second extension to the patch cord of an exclusive and BUS type registered jack-45 multiport modula bridge adapter (19) after the connecting contact in the correspondence 110 block. After the second DATA service inserting into the correspondence registered jack-45 modular jack of the registered jack-45 multiport modula adapter (18) for DATA as the patch cord of an exclusive and life DATA signal conversion equipment (20), the UTP cable for the telecommunications outlet of each designation is and links connected, the function of the integrated type digital telecommunication panel of the present invention is achieved in the corresponding 110 block of the lower part.

33 Moreover, since connecting and linking the groove (21a) for the patch cord telecommunications outlet of the front of the case top part to the patch cord of the light oil exclusive the single registered jack-45 modular jack for VOICE of a number is attached the single registered jack-45 modular jack for DATA of the terminal strip (17) for a lead-in or a number is attached in case of using the signal conversion amplifier arrangement of the environment phase embedded coaxial cable of a user and Unxhielded twisted-pair or the optical cable media, external devices support the use according to an environment.

34 Moreover, in the power source and earth terminal alternative block, the power portion doublelengt value (15) and ground terminal strip (23 are adhered to. Since connecting the earthing conductor which the power portion doublelengt value the ground terminal strip passes the ground terminal strip of the stair step salted dry fish through the function of the electric power supply of the embedded subscriber DATA signal conversion equipment (20) from the main distributing frame with connection, the identical point ground of the subscriber premise line former system is achieved and the secured facility including the abnormal current and leakage current etc. is achieved.

35 Moreover, the lid (22) equipped with pipe laying connection hole (11a) connecting the piping for the communications cable for an input-output to the lower part of the case edge, and the groove (21a) for the patch cord of the sliding door for input and output of connecting patch cords with the input-output patch cord described in the above adhered to the supporting plate in-plane to the case top portion and function and the outside equipment for protecting telecommunications outlets or the removable door form etc is adhered.

▸ Effects of the Invention

36 As described above, according to the integrated type digital telecommunication panel, for the use of the separate highway outlet, a user penuriously randomly selects a connection and dispersion of the various kinds of veyr high speed multimedia services provided to the UTP cable in which it was impossible to the connection and dispersion as the analog telephony communications suspicion communications terminal board of the existing BUS mode of the molding (STAR) mode, the optical cable and coaxial cable etc. and a user can use and the use makes possible. Therefore, the economical merit of separately not need to setting up the classification digital telecommunication panel and classification external computing device signal conversion amplifier arrangement outside has as to an user, for the use of the asynchronous transfer mode for multimedia service and the offer of various kinds of asynchronous transfer mode for multimedia information and communications services corresponding to the classification by type division of a building, that is, the various buildings of various user environments including the single-type residential building, the population apartment type residential building, officetel type residential and commercial complex type building and task exclusive building etc. is achieved with the integrated type digital telecommunication panel of the present invention.

Scope of Claims

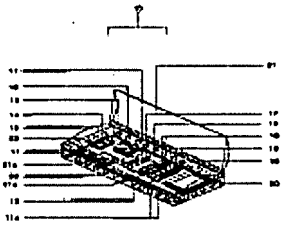
Claim[1] :

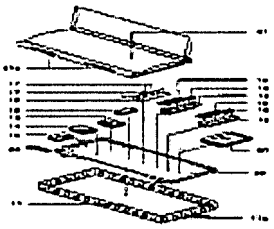
37 The integrated type digital telecommunication panel of the integrated type digital telecommunication panel for using the asynchronous transfer mode for multimedia digital information communications service, wherein it is comprised of the air radio frequency of a number of the removable supporting the coaxial cable media on the lower surface of the case of the square shape of the built-in type or the exposed and : case inside with connection, BS, dispersion / apparatus for branches for CS-TV suspicion signal conversion amplifier arrangements and upstream CATV, and the power source dispersion terminal strip connecting the power source to : the coaxial cable dragon, the UTP cable dragon, the optical cable and DATA signal conversion equipment etc. with the terminal strip of the registered jack-45 multiport modula bridge adapter of a number and registered jack-45 modular jack use and : embedded DIGITAL DATA, the ADSL MODEM, and CATV CABLE MODEM

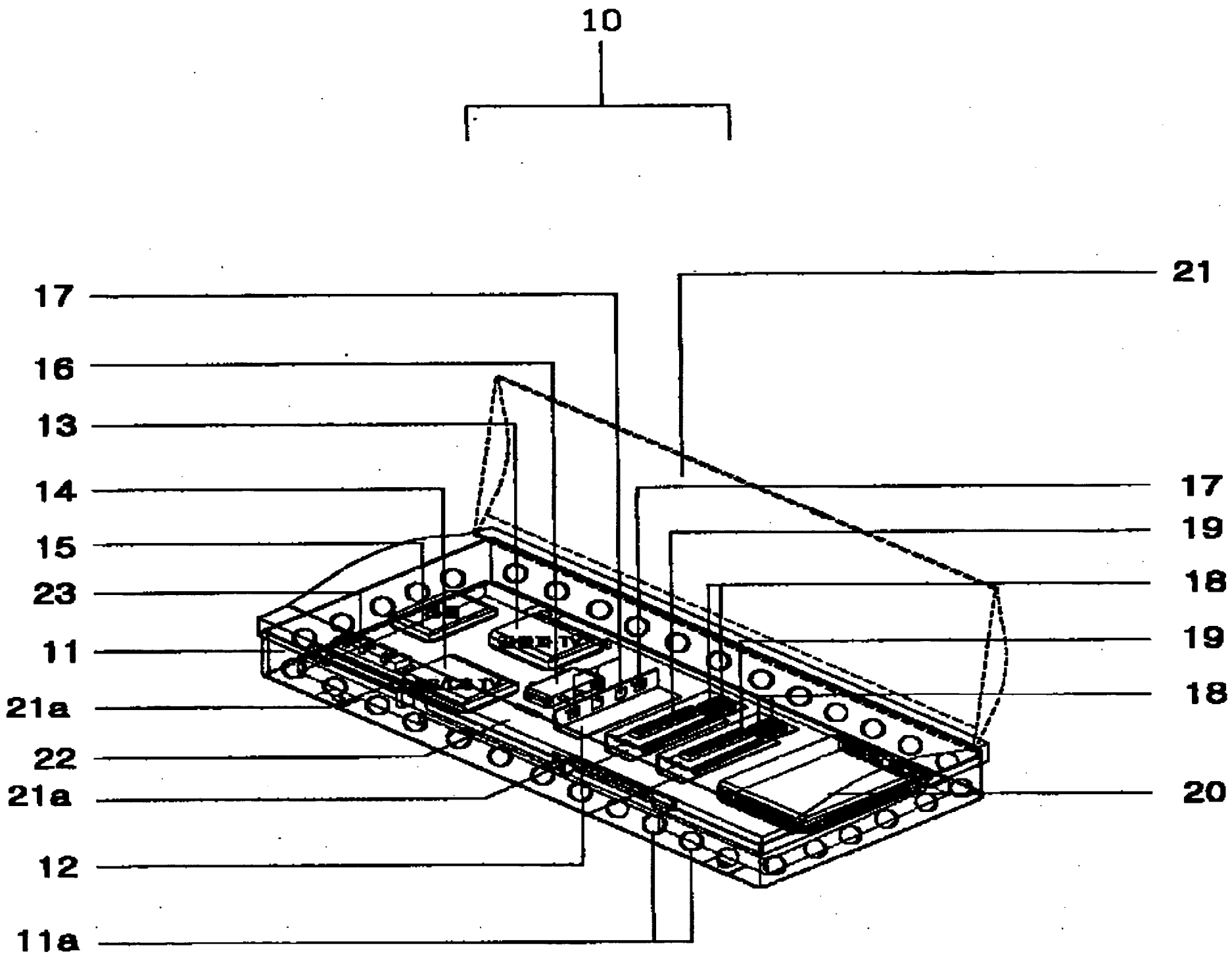
apparatuses with dispersion supports the connection of the DIGITAL service of the BUS mode less than the analog telephone of the terminal strip of the registered jack-45 multiport modula adapter of a number of the removable terminal strip, and as to the power source dispersion terminal strip, input and output dragon of the coaxial cable, ***, and F type connector for the coaxial cable of a number of the connecting for the built in and external computing device signal conversion amplifier arrangement are attached and the removable providing the DATA service of the high speed / asynchronous transfer mode of : UTP cable and optical cable media with connection and registered jack-45 modular jack use and : UTP cable media and 2Mbps.

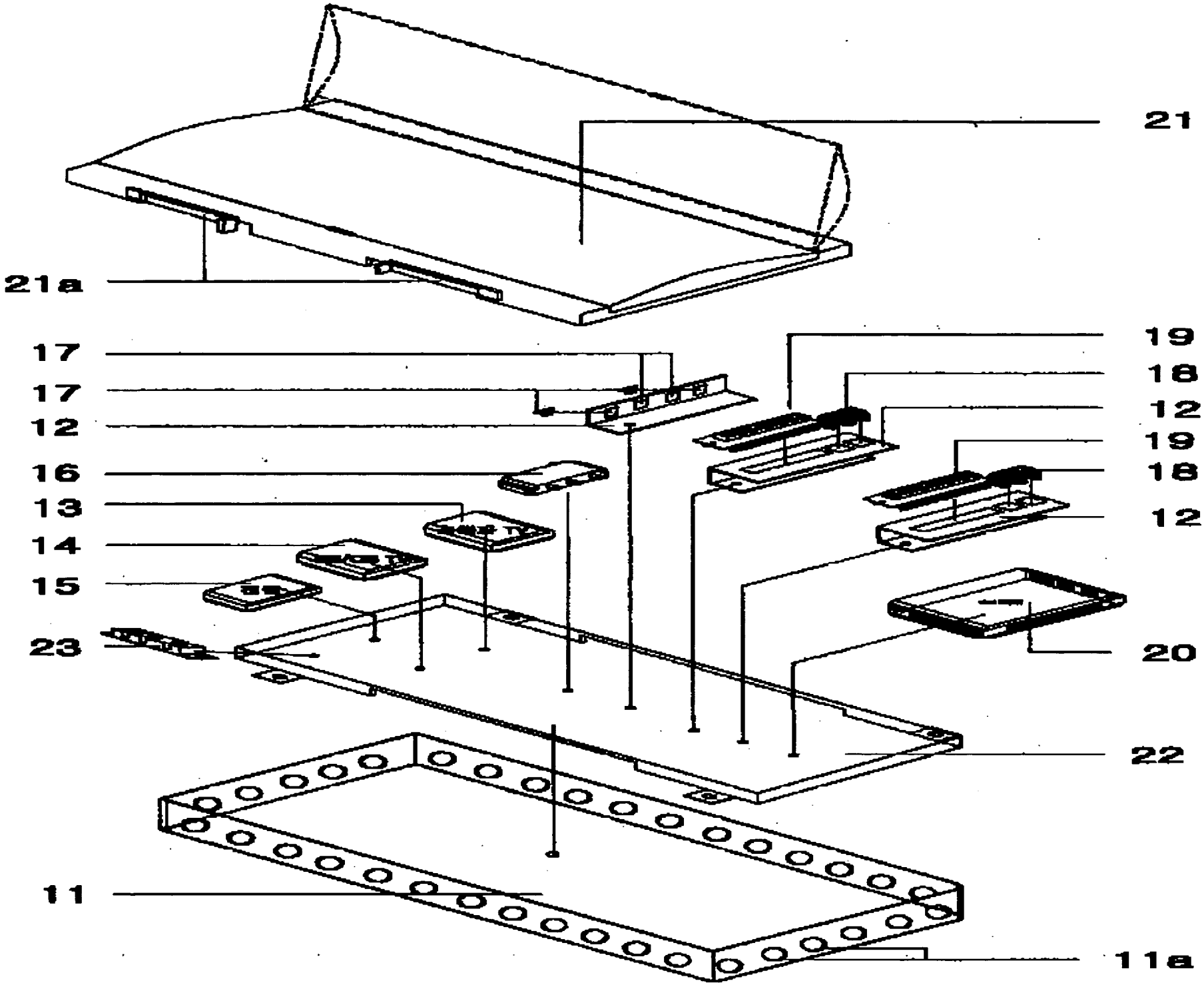
Claim[2] :

The integrated type digital telecommunication panel which a lid is adhered to the case top portion of the integrated type digital telecommunication panel and : built-in type or an exposed; and it processes the patch cords for the outside equipment connecting contact including the settop box (SET-TOP-BOX) and network terminal etc. within the case in the lower part specific location in the lower end of front side part of the ground terminal strip for the identical point ground connection of the power portion doublelengt value for the embedded subscriber terminal and subscriber premise line former system and : lid in order to be loaded and unloaded without being exposed and comprised of the case of the sliding door which secures to be beautiful or the built-in type in which the cable groove for the external cable withdrawal is equipped to the removable door form or the exposed of claim 1, wherein according to a user among information and communications mode is its own an environment including the tow way cable television of the coaxial cable media according to the building sort or the user environment and air radio frequency TV, the POTS analog telephone, N / ISDN, B / ISDN, the ADSL-G Lite, ADSL-Full of the UTP cable and optical cable media and ATM etc, the simplicity of a configuration is secured so that the composition of selection be arbitrarily possible.






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